SECTION G - CONTRACT ADMINISTRATION DATA

1. PAYMENT AND INVOICE INSTRUCTIONS (COST REIMBURSEMENT)

1.1 Submission of Invoices

- (a) "Invoice" as used in this clause includes contractor requests for interim payments using public vouchers (SF 1034).
- (b) The Contractor shall submit invoices and any necessary supporting documentation, in an original and _4_ copies, to the <u>contract auditor*</u> at the following address:

Defense Contract Audit Agency Eastern Region Northern Ohio Branch Office 10100 Brecksville Road, Suite A Brecksville, OH 44141 Attn: Warren Lee

Phone: (216) 706-2515

unless delivery orders are applicable, in which case invoices will be segregated by individual order and submitted to the address specified in the order. In addition, an information copy shall be submitted to the Program Officer identified in Section F.

Following verification, the <u>contract auditor*</u> will forward the invoice to the designated payment office for payment in the amount determined to be owing, in accordance with the applicable payment (and fee) clause(s) of this contract.

- (c) Invoices requesting interim payments shall be submitted no more than once every two weeks, unless another time period is specified in the Payments clause of this contract. For indefinite delivery type contracts, interim payment invoices shall be submitted no more than once every two weeks for each delivery order. There shall be a lapse of no more than _30_ calendar days between performance and submission of an interim payment invoice.
- (d) In addition to the information identified in the Prompt Payment clause herein, each invoice shall contain the following information, as applicable:
 - (1) Contract line item number (CLIN)
 - (2) Subline item number (SLIN)
 - (3) Accounting Classification Reference Number (ACRN)
 - (4) Payment terms
 - (5) Procuring activity
 - (6) Date supplies provided or services performed
 - (7) Costs incurred and allowable under the contract
 - (8) Vessel (e.g., ship, submarine or other craft) or system for which supply/service is provided

(e) A DD Form 250, "Material Inspection and Receiving Report",
is required with each invoice submittal.
X is required only with the final invoice.
is not required.

(f) The Contractor's final invoice shall be identified as such, and shall list all other invoices (if any) previously tendered under this contract.

1.2 Submission of Invoices Direct to Payment Office

- (a) Pursuant to DFARS 242.803(b)I)(C), if the cognizant Government auditor has notified the contractor of its authorization to do so, the contractor may submit interim vouchers under this contract direct to the payment office shown in Block 12 of SF-26 instead of to the address shown in subparagraph (b) of section 1.1 above.
- (b) Such authorization does not extend to the first and final vouchers. The contractor shall continue to submit first vouchers to the cognizant auditor shown in subparagraph (b) of section 1.1 above. The final voucher shall be submitted to the Administrative Contracting Officer (SF-26 block 6) with a copy to the cognizant auditor.

1.3 Payment Instructions for CLINs with Multiple ACRNs/Lines of Accounting

For all invoices submitted against CLINs with multiple Accounting Classification Reference Numbers (ACRNs), the billing shall be paid from the earliest Fiscal Year (FY) appropriation first (e.g., FYX0 funding shall be completely exhausted before any FYX1 funds are paid). In the event there are multiple ACRNs with the same FY of appropriation, billings shall be proportionally billed to all ACRNs for that FY in the same ratio that the ACRNs are obligated.

1.4 Payment of Allowable Costs and Fixed Fee

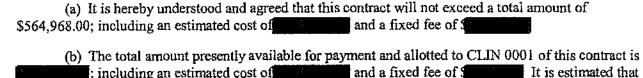
As consideration for the proper performance of the work and services required under this contract, the Contractor shall be paid as follows:

- (a) Costs, as provided for under the contract clause entitled "Allowable Cost and Payment," not to exceed the amount set forth as "Estimated Cost" in Section B, subject to the contract clause entitled "Limitation of Cost" or "Limitation of Funds" whichever is applicable.
- (b) A fixed fee in the amount set forth as "Fixed Fee" in Section B, in accordance with the contract clause FAR 52.216-8 Fixed Fee, which shall be paid upon completion of the work and services required under this contract and upon final acceptance by the Contracting Officer; however, the Contractor may bill on each voucher the amount of the fee bearing the same percentage to the total fixed fee as the amount of cost billed bears to the total estimated cost not to exceed the amount set forth as "Estimated Cost" in Section B, subject to the contract clause entitled "Limitation of Cost" or "Limitation of Funds" whichever applies .
- (c) In accordance with the authority contained in FAR 52.216-8 Fixed Fee, the Contractor shall withhold 10% of the fixed fee amount as set forth in Section B or \$100,000.00, whichever is less, as a reserve. The ACO is authorized to release 75% of the fixed fee reserve upon acceptance of the final deliverables identified in Section F of this contract. The remainder 25% of the fixed fee reserve will be

released after completion of any final audits, submission of the final patent and royalty reports and if the contractor is not delinquent in submitting final vouchers for prior years' settlements.

1.5 Allotment of Funds

the amount allotted of



2. PROCURING OFFICE REPRESENTATIVES

(a) In order to expedite administration of this contract, the Administrative Contracting Officer should direct inquiries to the appropriate office listed below. Please do not direct routine inquiries to the person listed in Item 20A on Standard Form 26.

Contract Negotiator - Brian K. Murphy, ONR 254, 703-696-0030, DSN 426-0030, and E-Mail Address: brian murphy@onr.navy.mil

will cover the period from date of award through 15 December 2004.

Inspection and Acceptance – Luise Couchman, ONR 334, 703-696-0786, DSN 426-0786, and E-Mail Address: Luise Couchman@onr.navy.mil

Security Matters - Ms. Jennifer Ramsey, ONR 43, (703) 696-4618, DSN 426-4618

Patent Matters - Mr. Tom McDonnell, ONR 00CC, (703) 696-4000, DSN 426-4000.

(b) The Administrative Contracting Officer will forward invention disclosures and reports directly to Corporate Counsel (Code 00CC), Office of Naval Research, Department of the Navy, Ballston Tower One, 800 North Quincy Street, Arlington, Virginia 22217-5660. The Corporate Counsel will return the reports along with a recommendation to the Administrative Contracting Officer. The Corporate Counsel will represent the Contracting Officer with regard to invention reporting matters arising under this contract.

3. TYPE OF CONTRACT

This is a cost-plus-fixed-fee completion contract.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

1. ONR 5252.235-9714 REPORT PREPARATION (FEB 2002)

Scientific or technical reports prepared by the Contractor and deliverable under the terms of this contract will be prepared in accordance with format requirements contained in ANSI/NISO Z39.18-1995, Scientific and Technical Reports: Elements, Organization, and Design.

[NOTE: All NISO American National Standards are available as free, downloadable pdf(s) at http://www.niso.org/standards/index.html. NISO standards can also be purchased in hardcopy form from NISO Press Fulfillment, P. O. Box 451, Annapolis Junction, MD 20701-0451 USA. Telephone U.S. and Canada: (877) 736-6476; Outside the U.S. and Canada: 301-362-6904 Fax: 301-206-9789.]

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2. ONR 5252.210-9708 METRICATION REQUIREMENTS (DEC 1988)

- (a) All scientific and technical reports delivered pursuant to the terms of this contract shall identify units of measurement in accordance with the International System of Units (SI) commonly referred to as the "Metric System". Conversion to U.S. customary units may also be given where additional clarity is deemed necessary. Guidance for application of the metric system is contained in the American Society of Testing Materials document entitled "Standard Practice for Use of the International System of Units (The Modernized Metric System)" (ASTM Designation E 380-89A)
- (b) This provision also applies to journal article preprints, reprints, commercially published books or chapters of books, theses or dissertations submitted in lieu of a scientific and/or technical report.

3. Invention Disclosures and Reports

The Contractor shall submit all invention disclosures and reports required by the Patent Rights clause of this contract to the Administrative Contracting Officer.

4. ONR 5252.237-9705 Key Personnel (DEC 88)

- (a) The Contractor agrees to assign to the contract tasks those persons whose resumes were submitted with its proposal and who are necessary to fulfill the requirements of the contract as "key personnel". No substitutions may be made except in accordance with this clause.
- (b) The Contractor understands that during the first ninety (90) days of the contract performance period, no personnel substitutions will be permitted unless these substitutions are unavoidable because of the incumbent's sudden illness, death or termination of employment. In any of these events, the Contractor shall promptly notify the Contracting Officer and provide the information described in paragraph (c) below. After the initial ninety (90) day period the Contractor must submit to the Contracting Officer all proposed substitutions, in writing, at least 30 days in advance 60 days if security clearance must be obtained) of any proposed substitution and provide the information required by paragraph (c) below.
- (c) Any request for substitution must include a detailed explanation of the circumstances necessitating the proposed substitution, a resume for the proposed substitute, and any other information requested by the Contracting Officer. Any proposed substitute must have qualifications equal to or superior to the qualifications of the incumbent. The Contracting Officer or his/her authorized representative will evaluate such requests and promptly notify the Contractor in writing of his/her approval or disapproval thereof.
- (d) In the event that any of the identified key personnel cease to perform under the contract and the substitute is disapproved, the contract may be immediately terminated in accordance with the Termination clause of the contract.

The following are identified as key personnel:

Labor Category	First/M/Last Name
Principal Investigator	

5. ONR 5252,242-9718 TECHNICAL DIRECTION (FEB 2002)

- (a) Performance of the work hereunder is subject to the technical direction of the Program Officer/COR designated in this contract, or duly authorized representative. For the purposes of this clause, technical direction includes the following:
- (1) Direction to the Contractor which shifts work emphasis between work areas or tasks, requires pursuit of certain lines of inquiry, fills in details or otherwise serves to accomplish the objectives described in the statement of work;
- (2) Guidelines to the Contractor which assist in the interpretation of drawings, specifications or technical portions of work description.
- (b) Technical direction must be within the general scope of work stated in the contract. Technical direction may not be used to:
 - Assign additional work under the contract;
 - (2) Direct a change as defined in the contract clause entitled "Changes";
- (3) Increase or decrease the estimated contract cost, the fixed fee, or the time required for contract performance; or
 - (4) Change any of the terms, conditions or specifications of the contract.
- (c) The only individual authorized to in any way amend or modify any of the terms of this contract shall be the Contracting Officer. When, in the opinion of the Contractor, any technical direction calls for effort outside the scope of the contract or inconsistent with this special provision, the Contractor shall notify the Contracting Officer in writing within ten working days after its receipt. The Contractor shall not proceed with the work affected by the technical direction until the Contractor is notified by the Contracting Officer that the technical direction is within the scope of the contract.
- (d) Nothing in the foregoing paragraphs may be construed to excuse the Contractor from performing that portion of the work statement which is not affected by the disputed technical direction.

SECTION I - CONTRACT CLAUSES

COST-PLUS-FIXED-FEE

(19 Feb 2004)

(A) FAR 52.252-02 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at these addresses:

http://www.arnet.gov/far/

http://farsite.hill.af.mil/farsite script.html

For instance, a dollar threshold may trigger the applicability of the clause or a certain condition of the research may trigger the applicability of the clause. In order to provide some assistance, as to when a dollar threshold triggers a clause, we have associated certain symbols with dollar thresholds. The symbols and their appropriate dollar thresholds are as follows:

Applies when contract action exceeds \$10,000

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- +
- Applies when contract action exceeds \$100,000 Applies when contract action exceeds \$500,000 Applies when contract action exceeds \$500,000 and ++ subcontracting possibilities exist. Small Business Exempt.
- Х
- Not applicable ХX

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1) CLAUSES:

**	FAR 52.202-1	Definitions (DEC 2001)
**	FAR 52.203-3	Gratuities (APR 1984)
**	FAR 52.203-5	Covenant Against Contingent Fees (APR 1984)
**	FAR 52.203-6	Restrictions on Subcontractor Sales to the Government (JUL 1995)
**	FAR 52.203-7	Anti-Kickback Procedures (JUL 1995)
**	FAR 52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (JAN 1997)
申本.	FAR 52.203-10	Price or Fee Adjustment for Illegal or Improper Activity (JAN 1997)
**	FAR 52.203-12	Limitation on Payments to Influence Certain Federal Transactions (JUN 2003)
**	FAR 52.204-4	Printing/Copying Double-Sided on Recycled Paper (AUG 2000)
	FAR 52.204-7	Central Contractor Registration (OCT 2003)
	FAR 52.211-15	Defense Priority and Allocation Requirements (SEP 1990)
**	FAR 52.215-2	Audit and Records - Negotiation (JUN 1999) and Alternate II (APR 1998) (Alternate II is only applicable with cost reimbursement contracts with State and local Governments, educational institutions, and other non-profit organizations.)
	FAR 52.215-8	Order of Precedence - Uniform Contract Format (OCT 1997)
+	FAR 52.215-10	Price Reduction for the Defective Cost or Pricing Data (OCT 1997) (The clause is applicable to subcontracts over \$550,000.)
+	FAR 52.215-12	Subcontractor Cost or Pricing Data (OCT 1997) (Applicable to subcontracts over \$550,000 only)
**	FAR 52.215-14	Integrity of Unit Prices (OCT 1997) and Alternate I (OCT 1997) (Alternate I is applicable if the action is contracted under Other Than Full and Open Competition)
+	FAR 52.215-15	Pension Adjustments and Asset Reversions (DEC 1998)
+	FAR 52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions (OCT 1997)
+	FAR 52.215-19	Notification of Ownership Changes (OCT 1997) (Applicable when Cost or Pricing Data is required)
	FAR 52.216-7	Allowable Cost and Payment (DEC 2002)
	FAR 52.216-8	Fixed Fee (MAR 1997)

**	FAR 52.219-4	Notice of Price Evaluation Preference for HUBzone Small Business Concerns (JAN 1999)
**	FAR 52.219-8	Utilization of Small Business Concerns (OCT 2000)
++	FAR 52.219-9	Small Business Subcontracting Plan (JAN 2002)
++	FAR 52.219-16	Liquidated Damages - Subcontracting Plan (JAN 1999)
- TT	FAR 52.222-1	Notice to the Government of Labor Disputes (FEB 1997)
**	FAR 52.222-1	Payment for Overtime Premiums (JUL 1990) (Note: The
	PAR 32.222-2	word "zero" is inserted in the blank space indicated by an
†		asterisk)
ļ <u> </u>	FAR 52.222-3	Convict Labor (JUN 2003) (Reserved when FAR
1	FAR 32.222-3	52,222-20 Walsh Healy Public Contracts Act is
	.	applicable)
**	FAR 52.222-4	Contract Work Hours and Safety Standards Act -
	PAR 32.222-4	Overtime Compensation (SEP 2000)
	FAR 52.222-21	Prohibition of Segregated Facilities (FEB 1999)
<u> </u>	FAR 52.222-26	Equal Opportunity (APR 2002)
*	FAR 52.222-35	Equal Opportunity for Special Disabled Veterans,
	1-Aix 32.222-33	Veterans of the Victnam Era, and Other Eligible
	Į.	Veterans (DEC 2001)
*	FAR 52.222-36	Affirmative Action for Workers with Disabilities (JUN
	1111(32:222:30	1998)
*	FAR 52,222-37	Employment Reports on Special Disabled Veterans,
		Veterans of the Vietnam Era, and Other Eligible
	1	Veterans (DEC 2001)
**	FAR 52.223-14	Toxic Chemical Release Reporting (AUG 2003)
· · · · · · · · · · · · · · · · · · ·	FAR 52.225-13	Restrictions on Certain Foreign Purchases (JAN 2004)
	FAR 52.227-1	Authorization and Consent (JUL 1995) and Alternate I
[(APR 1984)
**	FAR 52.227-2	Notice and Assistance Regarding Patent and Copyright
		Infringement (AUG 1996)
	FAR 52.228-7	Insurance Liability to Third Persons (MAR 1996)
]	1	(Further to paragraph (a)(3), unless otherwise stated in
		this contract, types and limits of insurance required are as
		stated in FAR 28.307-2)
	FAR 52.232-9	Limitation on Withholding of Payments (APR 1984)
**	FAR 52.232-17	Interest (JUN 1996)
	FAR 52.232-23	Assignment of Claims (JAN 1986) and Alternate I (APR
		1984)
	FAR 52.232-25	Prompt Payment (OCT 2003) and Alternate I (FEB
		2002) (The words "the 30th day" are inserted in lieu of
		"the 7th day" at (a) (5) (i). [When Alternate I is
}		applicable (a)(5)(i) does do not apply] [Alternate I
		applies when awarding a cost reimbursement
 	TI-D 50 000 00	contract for services]
	FAR 52.232-33	Payment by Electronic Funds Transfer - Central
· v	E (D CO 200)	Contractor Registration (OCT 2003)
<u> </u>	FAR 52.233-1	Disputes (JULY 2002)
	FAR 52.233-3	Protest After Award (AUG 1996) and Alternate I (JUN
	EAD 50 240 1	Notice of Intent to Disallow Costs (APR 1984)
<u> </u>	FAR 52-242-1	Profice of intent to Disanow Costs (AFR 1904)

+	FAR 52.242-3	Penalties for Unallowable Costs (MAY 2001)
	FAR 52.242-4	Certification of Final Indirect Costs (JAN 1997)
**	FAR 52.242-13	Bankruptcy (JUL 1995)
	FAR 52.242-15	Stop Work Order (AUG 1989) and Alternate I (APR 1984)
	FAR 52.244-2	Subcontracts (AUG 1998) and Alternate I (AUG
		1998)
		[Insert in cost-reimbursement contracts, and letter, time-and-material, and labor-hour contracts
	:	exceeding SAP, and fixed price contracts exceeding
	1	SAP where unpriced actions are anticipated. Use
		Alternate I for cost-reimbursement contracts
**	FAR 52.244-5	Competition in Subcontracting (DEC 1996)
	FAR 52.244-6	Subcontracts for Commercial Items and Commercial
		Components (APR 2003)
	FAR 52,245-5	Government Property (Cost-Reimbursement, Time-and-
	\	Materials, or Labor-Hour Contracts) (JUN 2003) and
	1	ALT I (JUN 2003) (As modified by DoD Class
		Deviation 99-00008 dated 13 July 1999) (ALT I is
		applicable if the contractor is a nonprofit organization
		whose primary purpose is the conduct of scientific research)
**	FAR 52.247-64	Preference for Privately Owned U.S. Flag Commercial Vessels (APR 2003)
	FAR 52.249-6	Termination (Cost-Reimbursement) (SEP 1996)
	FAR 52.249-14	Excusable Delays (APR 1984)
	FAR 52.251-1	Government Supply Sources (APR 1984)
	FAR 52.253-1	Computer Generated Forms (JAN 1991)

II. DEPARTMENT OF DEFENSE FAR SUPPLEMENTAL (DFARS) (48 CFR CHAPTER 2) CLAUSES:

**	DFARS 252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies (MAR 1999)
	DFARS 252.204-7003	Control of Government Work Product (APR 1992)
	DFARS 252.204-7004	Alternate A (NOV 2003)
**	DFARS 252.209-7000	Acquisition from Subcontractors subject to On-Site Inspection under the Intermediate Range Nuclear Forces (INF) Treaty (NOV 1995)
**	DFARS 252,209-7004	Subcontracting with Firms That Are Owned or Controlled by the Government of a Terrorist Country (MAR 1998)
+	DFARS 252.215-7000	Pricing Adjustments (DEC 1991)
+1	DFARS 252.219-7003	Small, Small Disadvantaged and Women-owned Small Business Subcontracting Plan (DoD Contracts) (APR 1996)

		·
	DFARS 252.225-7004	REPORTING OF CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES (APR 2003)
**	DFARS 252.225-7012	Preference for Certain Domestic Commodities (FEB 2003)
	DFARS 252.225-7031	Secondary Arab Boycott of Israel (APR 2003)
	DFARS 252.227-7013	Rights in Technical Data – Noncommercial Items (NOV 1995), and Alternate I (JUN 1995)
	DFARS 252,227-7014	Rights In Noncommercial Computer Software and Noncommercial Computer Software Documentation (JUN 1995)
	DFARS 252.227-7016	Rights in Bid or Proposal Information (JUN 1995)
	DFARS 252.227-7019	Validation of Asserted Restrictions – Computer Software (JUN 1995)
	DFARS 252.227-7025	Limitations on the Use or Disclosure of Government- Furnished Information Marked with Restrictive Legends (JUN 1995)
	DFARS 252.227-7028	Technical Data or Computer Software Previously Delivered to the Government (JUN 1995)
	DFARS 252.227-7030	Technical Data - Withholding of Payment (MAR 2000)
	DFARS 252.227-7036	Declaration of Technical Data Conformity (JAN 1997)
	DFARS 252.227-7037	Validation of Restrictive Markings on Technical Data (SEP 1999)
	DFARS 252.231-7000	Supplemental Cost Principles (DEC 1991)
	DFARS 252.232-7003	Electronic Submissions of Payment Requests (MAR 2003)
	DFARS 252.242-7000	Post-Award Conference (DEC 1991)
**	DFARS 252.243-7002	Requests for Equitable Adjustment (MAR 1998)
	DFARS 252.245-7001	Reports of Government Property (MAY 1994)
X	DFARS 252.246-7000	Material Inspection and Receiving Report (MAR 2003)
**	DFARS 252.247-7023	Transportation of Supplies by Sea (MAY 2002)
**	DFARS 252,247-7024	Notification Of Transportation Of Supplies By Sea
	1	(MAR 2000) (Applicable when the Contractor has made
ļ		a negative response to the inquiry in the representation at DFARS 252.247-7022.)
	DFARS 252.251-7000	Ordering from Government Supply Sources (OCT 2002)

(B) ADDITIONAL FAR AND DFARS CLAUSES

This contract incorporates one or more clauses by reference as indicated by the mark of (X), with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: http://www.arnet.gov/far/

	FAR 52.204-2	Security Requirements (AUG 1996) (Applicable if contract will generate or require access to classified information and DD Form 254, Contract Security Classification Specification, is issued to the contractor)
X	FAR 52,209-6	Protecting the Government's Interest when Subcontracting with Contractors Debarred, Suspended,

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		or Proposed for Debarment (JUL 1995) (Applicable to
		contracts exceeding \$25,000 in value.)
X	FAR 52.215-17	Waiver of Facilities Capital Cost of Money (OCT 1997)
		(Applicable if the Contractor did not propose facilities
		capital cost of money in the offer)
X	FAR 52.215-21	Requirements for Cost or Pricing Data or Information
		Other Than Cost or Pricing Data - Modifications (OCT
		1997) (Applicable to 'contracts' if cost or pricing data or
]	information other than cost or pricing data will be
		required for modifications)
	FAR 52.217-9	Option to Extend the Term of the Contract (MAR 2000)
		(In paragraph (a), insert "XX", and in paragraph (c),
		insert "XX") (Applicable if contract contains line item(s)
		for option(s)) (Complete the spaces in parentheses)
	FAR 52.219-3	Notice of Total HUBZone Set-Aside (JAN 1999)
	FAR 52.219-5	Very Small Business Set-Aside (JUN 2003) (For actions
		between \$2,500 and \$50,000)
	FAR 52.219-6	Notice of Total Small Business Set-Aside (JUN 2003),
		and Alternate I (OCT 1995) (Applicable to total small
		business set-asides, including SBIR)
	FAR 52.219-7	Notice of Partial Small Business Set-Aside (JUN 2003)
		and Alternate I (OCT 1995)
	FAR 52.219-10	Incentive Subcontracting Program (OCT 2001)
		(Applicable at the PCO's discretion to contract actions
	}	exceeding \$500,000 and when subcontracting
		possibilities exist. The clause is small business exempt)
		(In paragraph (b), insert the appropriate number between
	· 1	0 and 10 – "XX") (Complete the space in the
		parentheses)
	FAR 52.219-25	Small Disadvantaged Business Participation Program -
		Disadvantaged Status and Reporting (OCT 1999)
		(Applicable if contract includes FAR 52.219-24)
	FAR 52.219-26	Small Disadvantaged Business Participation Program -
	1	Incentive Subcontracting Program (OCT 2000)
	·	(Applicable at the PCO's discretion to contract actions
	•	exceeding \$500,000 and when subcontracting
		possibilities exist. The clause is small business exempt)
		(In paragraph (b), insert the appropriate number between
ነ		0 and 10 – "XX") (Complete the space in the
	TAD 50 000 00	parentheses)
{	FAR 52.222-20	Walsh Healy Public Contracts Act (DEC 1996)
1		(Applicable if the contract includes deliverable materials,
Į		supplies, articles or equipment in an amount that exceeds
	FAR 52.223-5	or may exceed \$10,000) Pollution Prevention and Right-to-Know Information
	FAR 32.223-3	(AUG 2003) (Applicable if contract provides for
!		performance, in whole or in part, on a Federal facility)
	FAR 52.223-6	Drug-Free Workplace (MAY 2001) (Applies when
X	PAK 32.223-0	contract action exceeds \$100,000 or at any value when
		the contract is awarded to an individual)
ļ	FAD 52 220 2	Cost Accounting Standards (APR 1998) (Applicable
L	FAR 52.230-2	Cost Accounting standards (AFA 1970) (Applicable

		when contract amount is over \$500,000, if contractor is
	<u> </u>	subject to full CAS coverage, as set forth in 48 CFR
	1	- 1
	TAD 53 330 3	Chapter 99, Subpart 9903.201-2(a) (FAR Appendix B)
	FAR 52.230-3	Disclosure and Consistency of Cost Accounting Practices
		(APR 1998) (Applicable when contract amount is over
		\$500,000 but less than \$25 million, and the offeror
		certifies it is eligible for and elects to use modified CAS
		coverage as set forth in 48 CFR Chapter 99, Subpart
		9903.201-2 (FAR Appendix B)
	FAR 52.230-6	Administration of Cost Accounting Standards (NOV
		1999) (Applicable if contract is subject to either clause at FAR 52.230-2, FAR 52.230-3 or FAR 52.230-5)
X	FAR 52.232-20	Limitation of Cost (APR 1984) (Applicable only when
		contract action is fully funded)
X	FAR 52.232-22	Limitation of Funds (APR 1984) (Applicable only when
		contract action is incrementally funded)
	FAR 52,239-1	Privacy or Security Safeguards (AUG 1996) (Applicable
		to contracts for information technology which require
		security of information technology, and/or are for the
		design, development, or operation of a system of records
		using commercial information technology services or
		support services.)
	FAR 52.245-18	Special Test Equipment (FEB 1993) Applicable when it
	FAR 32.243-16	is anticipated that the contractor will acquire or fabricate
	ļ	special test equipment but the exact identification of the
		equipment is not known)
	DFARS 252.203-7002	Display of DoD Hotline Poster (DEC 1991) (Applicable
•	DFARS 232.203-7002	only when contract action exceeds \$5 million or when
		any modification increases contract amount to more than
		\$5 million)
77	DEADG 252 204 7000	Disclosure of Information (DEC 1991) (Applies when
X	DFARS 252.204-7000	, , , , , , , , , , , , , , , , , , ,
	·	Contractor will have access to or generate unclassified
		information that may be sensitive and inappropriate for
	7717777777	release to the public)
	DFARS 252.204-7005	Oral Attestation of Security Responsibilities (NOV 2001)
		(Applicable if FAR 52.204-2, Security Requirements
		Applies)
X	DFARS 252.205-7000	Provision of Information to Cooperative Agreement
	· ·	Holders (DEC 1991) (Applicable only when contract
		action exceeds \$500,000 or when any modification
		increases total contract amount to more than \$500,000)
X	DFARS 252.215-7002	Cost Estimating System requirements (Oct 1998)
[1	(Applicable only to contract actions awarded on the basis
		of certified cost or pricing data)
	DFARS 252.223-7004	Drug-Free Work Force (SEP 1988) (Applicable (a) if
	•	contract involves access to classified information: or (b)
]	1	when the Contracting Officer determines that the clause
		is necessary for reasons of national security or for the
	1	purpose of protecting the health or safety of performance
		of the contract.
	DFARS 252.223-7006	Prohibition on Storage and Disposal of Toxic and

		Hazardous Materials (APR 1993) (Applicable if work requires, may require, or permits contractor performance on a DoD installation)
	DFARS 252.225-7001	Buy American Act and Balance of Payments Program (APR 2003) (Applicable if the contract includes deliverable supplies) (This clause does not apply if an exception to the Buy American Act or Balance of Payments Program is known or if using the clause at 252.225-7021, or 252.225-7036.)
	DFARS 252.225-7002	Qualifying Country Sources as Subcontractors (APR 2003) (Applicable when clause at DFARS 252.225-7001, 252.227-7021, or 252.227-7036 applies)
	DFARS 252.225-7016	Restriction On Acquisition Of Ball And Roller Bearings (APR 2003) (Applicable if contract includes deliverable supplies, unless Contracting Officer knows that items being acquired do not contain ball or roller bearings)
	DFARS 252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises (SEP 2001) [(Applicable if FAR Part 12 is not used, and for supplies and services (but not R&D) expected to exceed SAP thresholds) (This Final Rule replaces FAR 52.226-1 (JUN 2000) via DFARS Chg Ntc 20020531]
	DFARS 252.227-7018	Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program (JUN 1995
·	DFARS 252.242-7004	Material Management and Accounting System (DEC 2000) (Applicable to contract actions exceeding \$100,000) (Not applicable for contracts awarded to small businesses, educational institutions, or nonprofit organizations)

(C) COST-PLUS-FIXED-FEE-RESEARCH AND DEVELOPMENT CLAUSES

The following FAR and DFARS clauses apply to Cost-Plus-Fixed-Fee Research and Development Contracts and are either required by regulation or are required when the circumstances of the contract warrant that they apply: (** - applies to contract actions exceeding \$100,000)

	FAR 52.225-16	Sanctioned European Union Country Services (FEB 2000)
**	FAR 52.227-1	Authorization and Consent (JUL 1995) and Alternate I (APR 1984)
	FAR 52.243-2	Changes – Cost Reimbursement (AUG 1987) and Alternate V(APR 1984)
	FAR 52.246-9	Inspection of Research and Development (Short Form) (APR 1984)
	FAR 52.246-23	Limitation of Liability (FEB 1997)
	DFARS 252.235-7002	Animal Welfare (DEC 1991)
	DFARS 252.235-7011	Final Scientific or Technical Report (SEP 1999)

The following FAR and DFARS clauses for Cost-Plus-Fixed-Fee Research and Development Contracts only apply when specifically marked with a check (x):

	FAR 52,227-10	Filing of Patent Applications —Classified Subject Matter (APR 1984) (Applicable if contract is subject to FAR clause 52.204-02 and either 52.227-11 or 52.227-12)
X	FAR 52.227-11	Patent Rights – Retention by the Contractor (Short Form) (JUN 1997) (Applicable if contractor is a small business or non profit organization)
	OR	
	FAR 52.227-12	Patent Rights – Retention by the Contractor (Long Form) (JAN 1997) (Applicable if contractor is a large business)
X	DFARS 252.227-7034	Patents – Subcontracts (APR 1984) (Applicable when FAR 52.227-11 applies)
X	DFARS 252.227-7039	Patents – Reporting of Subject Inventions (APR 1990) (Applied when FAR 52,227-11 applies)

SECTION J - LIST OF ATTACHMENTS

- 1. EXHIBIT A, entitled "Contract Data Requirements List" (DD Form 1423) 1 page with Enclosure Number 1, entitled "Contract Data Requirements List Instructions for Distribution," 2 pages.
- 2. ATTACHMENT NUMBER 1, entitled, "Statement of Work", 2 pages.
- 3. ATTACHMENT NUMBER 2, entitled, "Financial Accounting Data Sheet", 1 page.

SECTION K - REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFEROR

1. The Contractor's Representations and Certifications, dated 13 November 2003, are hereby incorporated into this contract by reference.

CONTRACT DATA REQUIREMENTS LIST Form Approved OMB No. 0704-0188 (2 Data Items) The public reporting burden for this collection of information is estimated to average 140 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (9701-0168), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. Listed in Block E. B. EXHIBIT C. CATEGORY A. CONTRACT LINE ITEM NO. TOP OTHER 0001 E. CONTRACT/PR NO. F. CONTRACTOR D. SYSTEM/ITEM SIMPLY SPARSE TECHNOLOGIES FAST Solution Methods for N00014-04-C-0074 Electromagnetic Scattering 3. SUBTITLE 17. PRICE GROUP 2 TITLE OF DATA ITEM 1. DATA ITEM NO. Progress Reports 6. CONTRACT REFERENCE 8. REQUIRING OFFICE 18, ESTIMATED 4. AUTHORITY (Data Acquisition Document No.) TOTAL PRICE See Section H.1 See Section F 9. DIST STATEMENT | 10 FREQUENCY 12. DATE OF FIRST SUBMISSION 7. DD 250 REQ 14. DESTRIBUTION REQUIRED As Required LT* 6, COPIES 11. AS OF DATE 13. DATE OF SUBSEQUENT #. APP CODE a ADDRESSEE SUBMISSION N/A Repro 16. REMARKS See Enclosure Number 1 * As required by the Program Officer, these reports, submitted periodically for the purpose of reporting progress (both technical and cost expenditure status), may be in the form of a letter report or a technical report 15. TOTAL -3, SUBTITLE 17. PRICE GROUP 1. DATA ITEM NO. 2. TITLE OF DATA ITEM Final Report 2004 5. CONTRACT REFERENCE 6. REQUIRING OFFICE 18. ESTERATED 4. AUTHORITY (Data Acquisition Document No.) TOTAL PRICE See Section F See Section H.1 12 DATE OF FIRST SUBMISSION 7. DO 256 REQ 9. DIST STATEMENT 10 FREQUENCY 14. DISTRIBUTION REQUIRED 31 March 2007 ONE/R DD* COPIES 13. DATE OF SUBSEQUENT 11. AS OF DATE a. APP CODE a. ADDRESSEE SUBMISSION Draft 31 March 2007 N/A Repro N/A Reg See Enclosure 16, REMARKS The Contractor shall include relevant databases as Number 1 part of the Final Report. * DD 250 is only required for acceptance by the Program Officer designated in Section F. Information copies shall be sent to the appropriate parties in accordance with Enclosure Number 1. 15, TOTAL -> I. APPROVED BY G. PREPARED BY H. DATE

DD FORM 1423-2, AUG 96 (EG)

PREVIOUS EDITION MAY BE USED

3/15/2004

R. Brian Bradley

Page 1 of 1 Page(s)

Brian K. Murphy

ENCLOSURE NUMBER 1 CONTRACT DATA REQUIREMENTS LIST INSTRUCTIONS FOR DISTRIBUTION

DISTRIBUTION OF TECHNICAL REPORTS AND FINAL REPORT

The minimum distribution of technical reports and the final report submitted in connection with this contract is as follows:

		NUMB	ER OF COPIES
ADDRESSEE	DODAAD CODE	UNCLASSIFIED/ UNLIMITED	UNCLASSIFIED/LIMITED AND CLASSIFIED
Program Officer: Luise Couchman, ONR 334 E-Mail: Luise Couchman@onr.navy.mil	N00014	1	1
Administrative Contracting Officer*	S3911A	1	1
Director, Naval Research Lab Attn: Code 5227 4555 Overlook Avenue, SW Washington, D.C. 20375-5320 E-mail: reports@library.nrl.navy.mil	N00173	1	1
Defense Technical Information Center 8725 John J. Kingman Road STE 0944 Ft. Belvoir, VA 22060-6218 E-mail: tr@dtic.mil	S47031	2	2

^{*} Send only a copy of the transmittal letter to the Administrative Contracting Officer; do not send actual reports to the Administrative Contracting Officer.

ELECTRONIC SUBMISSIONS OF TECHNICAL REPORTS IS PREFERRED AND ENCOURAGED. ELECTRONIC SUBMISSION SHOULD BE SENT TO THE E-MAIL ADDRESSES PROVIDED IN THE ABOVE TABLE, HOWEVER PLEASE NOTE THE FOLLOWING:

- Only Unlimited/Unclassified document copies may be submitted by e-mail.
- Unclassified/Limited has restricted distribution and a classified document (whether in its entirety or partially) is to be distributed in accordance with classified material handling procedures.
- Electronic submission to DIRECTOR, NAVAL RESEARCH LAB, shall be unclassified/unlimited reports and 30 pages or less. If unclassified and more than 30 pages, hardcopies of reports must be mailed.
- Electronic submission to DTIC shall be unclassified/unlimited reports. If submission is for

limited documents, please send them in on a disk or sign up for DTIC's web-based document submission system at http://www.dtic.mil/dtic/submitting/elec_subm.html.

If the Program Officer directs, the Contractor shall make additional distribution of technical reports in accordance with a supplemental distribution list provided by the Program Officer.

DISTRIBUTION OF PROGRESS REPORTS, which are NOT, Technical Reports

The minimum distribution for reports that are not technical reports is as follows:

		NUMBE	R OF COPIES
ADDRESSEE	DODAAD CODE	UNCLASSIFIED/ UNLIMITED	UNCLASSIFIED/LIMITED AND CLASSIFIED
Program Officer: Luise Couchman, ONR 334 E-Mail: Luise Couchman@onr.navy.mil	N00014	1	1
Administrative Contracting Officer*	\$3911A	1	1

^{*}Send only a copy of the transmittal letter to the Administrative Contracting Officer; do not send actual reports to the Administrative Contracting Officer.

STATEMENT OF WORK

Perform research in efficient numerical methods for electromagnetic scattering as follows:

- 1) Examine the sparseness and the stability of the sparseness of the matrices produce by the Simply Sparse method. Examine situations in which sparseness is lost and propose solutions.
- 2) Develop and test methods for creating basis functions with overlap between regions. Evaluate the linear independence of these functions. Develop algorithms that may make them orthogonal or nearly orthogonal, and test their effectiveness. Evaluate the numerical efficiency of the Basic SS method when such overlapping functions are used.
- 3) Evaluate the performance of the Basic SS method for two or more problems involving either material properties or a hybrid computation. Determine how the sparseness of the compressed matrix is affected, and whether the solution is efficient using the Block SS solver and possibly other solvers.
- 4) Implement in sample computations a new or existing method for the generation of far off diagonal blocks of the matrix. This method may either use only sample matrix elements within that block and the assumption of low rank, or it may use a different method. These matrix elements may either be generated explicitly or implicitly. Develop and test methods for performing the Basic SS transformation using the resulting representation of such a block. Evaluate the accuracy achieved.
- 5) Study the properties of direct solution methods for sparse matrices such as those produced by the Basic SS method and the Angular SS method by theoretical methods and/or sample numerical computations. This study is to include the Block SS solver and Schur Complement methods, and possibly others. Propose and study alternative methods for direct solution that reasonably might have desirable numerical properties. These alternative methods might be variations on the existing Block SS solver or Schur Complement solver, or they may be completely different methods.

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PROJECT SCHEDULE AND MILESTONES

0)	Program Begins	March 26, 2004
1)	Examine Sparseness and Stability of SS method	April 1, 2004
2)	Study Overlapping Functions	
	a) Propose methods	May 1, 2004
	c) Evaluate Sparseness and Orthogonality	August 1, 2004
	d) Evaluate Numerical Efficiency re Basic SS	November 15, 2004
3)	Evaluate hybrid performance	
	a) Determine test case	December 1, 2004
	b) Obtain/develop usual hybrid computation	March 1, 2005
	c) Compute compressed matrix using Basic SS	July 1, 2005
	d) Evaluate performance of compression	September 15, 2005
	e) Evaluate Block Solver performance	November 15, 2005
4)	Generation of far off diagonal blocks.	
	a) Implement a method for such fast generation.	March 1, 2006
	b) Test with SS transformation	May 15, 2006
	c) Interpret results and examine alternatives	August 1, 2006
•		

5) Direct Solution Methods

a) Further evaluate Block SS Solver November 1, 2006 b) Further evaluate Schur Complement methods December 31, 2006

Methods that are implemented here will not be implemented in a general purpose computer program as part of this research. The goal of this research is development of algorithms and a description of their properties; it is not to produce any computer program.

DELIVERABLES

Every six months a letter technical progress report will be provided, along with Power Point slides describing that technical progress. At the end of the contract, a formal progress report will be provided. Each year, at least one technical paper will be written, suitable for submission for publication in a peer reviewed journal.

FINANCIAL ACCOUNTING DATA SHEET - NAVY

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Contract Distribution Sheet

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STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243 Effective as of the date of this Modification:

1. Section B is revised to read as follows:

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

ITEM NO.	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL ESTIMATED COST & FIXED FEE
0001	The Contractor shall furnish the necessary personnel and facilities to conduct the research effort and provide reports and data as described in Section C.			
000101	ACRN: AA			
000102	ACRN: AB			
000103	ACRN: AC		:	
000104	ACRN: AD			
	ESTIMATED CONTRACT ERATION:			

- 2. The funds available for performance of this contract are increased by the amount set forth in the attached Financial Accounting Data Sheets.
- Section G, paragraph 1.5., entitled, "Allotment of Funds" is revised to read as follows: "RESERVED"

This modification makes no change to the total estimated cost and fixed fee of this contract, and all other terms and conditions remain unchanged.

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Contract Distribution Sheet

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Contract Number:	N0001404C0074	
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	7.	3. This item applies only to m It modifies the contract						
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appropriation data	etc) SET FOR	TRACT/ORDER IS MODIFIED TO F TH IN ITEM 14, PURSUANT TO THI	E AUTHORITY OF FAI			uch as chang	es in paying	office,
		T IS ENTERED INTO PURSUANT T FULL AND OPEN COMPETITION:	O AUTHORITY OF:				- 	
D. OTHER (Specif	y type of modific	ation and sutherity) rties, purguent to FAR 43.103	(a) and FAR 52 23	12-22 I In	nitation of F	ınde		
		le required to sign this docume				B-108-F-		
14. DESCRIPTION OF	AMENDMENTA	ADDIFICATION (Organized by UCF	section headings, inclu	ding solicit	lion/contract	ubject metter	Where fees	ible.)
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AMENDMENT OF SOL				D0-C9(U)			1	11	2
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OFFICE OF NAVAL RESEARCH		,,,, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	DCM Pittsburg					_	
ONR 254 Brian K. Murphy (703)696-0	1030		Moorhead Fede		. Room 16	512			
E-mail brian_murphy@onr.navy.mil			1000 Liberty A	_	,				
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1GYT5				1 1		·			
	11. THIS IT	EM ONLY APPLIES	TO AMENDMENTS	OF SOLICITAT	IUNS				
Offers must acknowledge receipt of tr completing items 8 and 15, and return (c) By separate letter or telegram while RECEIVED AT THE PLACE DESIGN OF YOUR OFFER. If by virtue of this each telegram or letter makes referen 12. ACCOUNTING AND APPROPRIA SEE THE ATTACHED FINAN (3) A. THIS CHANGE ORDER IS IS ORDER NO. IN ITEM 10A.	on includes a reference of the control of the contr	the amendment; (0) E prence to the solicitation RECEIPT OF OFFER I desire to change an o tion and this amendme required) JNTING DATA (F APPLIES ONLY TO M	ny acknowledging re on and amendment is S PRIOR TO THE it offer already submittent, and is received AD) SHEET(S)	HOUR AND DA HOUR AND DA Hed, such change prior to the oper	JRE OF YOU TE SPECIFI IS may be maing hour an	UR ACKNOW: ED MAY RES ade by telegral d data specifie	LEDGMEN ULT IN RE m or letter ed.	NT TO B JECTIC , provide	SE DN ed
D THE ABOVE NUMBERED CO	ONTRACT/ORDE	R IS MODIFIED TO F	REFLECT THE ADM	MINISTRATIVE (CHANGES (such as chang	ges in payi	ng offici	θ,
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AUTHORITY FOR OTHER THA	IN FULL AND OI	PEN COMPETITION:		<u> </u>	<u> </u>	 .	··· ·		
X D. OTHER (Specify type of moo Mutual Agreement of the	Parties, pursu	ant to FAR 43.103	(a), and FAR 52	.232-22, Limi	tation of F	unds.			
E. IMPORTANT: Contractor is a	not, 🔀 is requir	ed to sign this docume	ent and return _2_ c	opies to the Issu	ling office.				
14. DESCRIPTION OF AMENDMEN	T/MODIFICATIO	N (Organized by UCF	section headings, in	ncluding solicital	ion/contract	subject matte	r where fo	asidle.)	
THE PURPOSE OF THIS MONOTONIA AND PRATTACHED FINANCIAL A	OVIDE FOR	. A FUNDING IN G DATA SHEET	CREMENT. A	CCORDING	LY, THE	ER CONTR FUNDING	ACT N GCITEL	JMBE ON T	ir Phe
Except as provided herein, all terms	and conditions of	f the document referen	oced in item 9A or 10	OA, as heretofor	e changed, i	remains uncha	anged and	in full fo	orce
and effect. 15A, NAME AND TITLE OF SIGNER	(Type or print)		16A, NAME AND	TITLE OF CON	TRACTING	OFFICER (T)	pe or print	9	
THE HAME WHE THE OF GIONER	. (.)								
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15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED	\	ATES OF AME	NOR		LIGGY DA	HE GIG	اللهاوة
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(Signature of person authorized to si	gn)	1	(Signature of Cor 30-105	цгасилд Опісег	/	TÄNDARD FO	RM 30 (R	EV. 10-	83)
SN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE NAVOCNR OVERPRINT (3-88)			av-100		P:	rescribed by G AR (48 CFR)	SA		- ef

Effective as of the date of this modification:

- 1) The funds available for performance of this contract are increased by the amount set forth in the attached Financial Accounting Data sheet(s).
- 2) Section B is deleted in its entirety and reinstated as follows:

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

ITEM NO.	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL ESTIMATED COST & FIXED FEE
0001	The Contractor shall furnish the necessary personnel and facilities to conduct the research effort and provide reports and data as described in Section C.			\$654,314.00
000101	ACRN: AA			
000102	ACRN: AB			
	ESTIMATED CONTRACT ERATION:			\$654,314.00

3) Section C is deleted in its entirety and reinstated as follows:

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

- 1. The research effort to be performed hereunder shall be subject to the requirements and standards contained in Exhibit A and the following paragraph(s).
- 2. The Contractor shall conduct the research effort in accordance with Attachment Number 1, entitled, "Statement of Work".
- 3. The Contractor shall conduct the research effort in accordance with Attachment Number 3, entitled, "Statement of Work Expansion P00002".
 - 4) Section G, paragraph 1.5, Allotment of Funds, is deleted in its entirety and reinstated as follows:

"Allotment of Funds

(a) It is hereby understood and agreed that the	
\$654,314.00; including an estimated cost of	and a fixed fee of the same.
	ayment and allotted to CLIN 0001 of this contract
is including an estimated cost of !	
estimated that the amount allotted of	will cover the period from date of award through
10 February 2006."	

5) Section G, paragraph 2, PROCURING OFFICE REPRESENTATIVES, is deleted in its entirety and reinstated as follows:

"2. PROCURING OFFICE REPRESENTATIVES

(a) In order to expedite administration of this contract, the Administrative Contracting Officer should direct inquiries to the appropriate office listed below. Please do not direct routine inquiries to the person listed in Item 20A on Standard Form 26.

Contract Negotiator – Brian K. Murphy, ONR 254, 703-696-0030, DSN 426-0030, and E-Mail Address: brian murphy@onr.navy.mil

Inspection and Acceptance – Luise Couchman, ONR 334, 703-696-0786, DSN 426-0786, and E-Mail Address: Luise Couchman@onr.navy.mil

Security Matters - Mr. Brian Link, ONR 43, (703) 696-4619, DSN 426-4619

Patent Matters - Mr. Tom McDonnell, ONR 00CC, (703) 696-4000, DSN 426-4000.

- (b) The Administrative Contracting Officer will forward invention disclosures and reports directly to Corporate Counsel (Code 00CC), Office of Naval Research, Department of the Navy, Ballston Tower One, 800 North Quincy Street, Arlington, Virginia 22217-5660. The Corporate Counsel will return the reports along with a recommendation to the Administrative Contracting Officer. The Corporate Counsel will represent the Contracting Officer with regard to invention reporting matters arising under this contract."
 - 6) Section I is deleted in it entirety and reinstated as follows:

Introduction: Section I

Attention: Prime Contractors. If a sub-award is made to an educational institution, Prime Contractors are directed to please refer to the ONR Model Award for appropriate flow-down clauses to universities. See http://www.onr.navy.mil, click Contracts & Grants Icon. Click Model Awards Link. Click Section I clauses that flow-down to University subcontractors.

SECTION I - CONTRACT CLAUSES

(October 2004)

COST-PLUS-FIXED-FEE

(A) FAR 52.252-02 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at these addresses:

http://www.arnet.gov/far/

http://farsite.hill.af.mil/farsite_script.html

For instance, a dollar threshold may trigger the applicability of the clause or a certain condition of the research may trigger the applicability of the clause. In order to provide some assistance, as to when a dollar threshold triggers a clause, we have associated certain symbols with dollar thresholds. The symbols and their appropriate dollar thresholds are as follows:

- * Applies when contract action exceeds \$10,000
- ** Applies when contract action exceeds \$100,000
- + Applies when contract action exceeds \$500,000

- ++ Applies when contract action exceeds \$500,000 and subcontracting possibilities exist. Small Business Exempt.
- x (DD 250)
- xx Not applicable

I. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1) CLAUSES:

**	FAR 52.202-1	Definitions (JUN 2004)
**	FAR 52.203-3	Gratuities (APR 1984)
**	FAR 52.203-5	Covenant Against Contingent Fees (APR 1984)
**	FAR 52.203-6	Restrictions on Subcontractor Sales to the Government (JUL 1995)
**	FAR 52.203-7	Anti-Kickback Procedures (JUL 1995)
**	FAR 52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (JAN 1997)
**	FAR 52.203-10	Price or Fee Adjustment for Illegal or Improper Activity (JAN 1997)
**	FAR 52.203-12	Limitation on Payments to Influence Certain Federal Transactions (JUN 2003)
**	FAR 52.204-4	Printed or Copied Double-Sided on Recycled Paper (AUG 2000)
	FAR 52,204-7	Central Contractor Registration (OCT 2003)
	FAR 52.211-15	Defense Priority and Allocation Requirements (SEP 1990)
**	FAR 52.215-2	Audit and Records - Negotiation (JUN 1999)
	FAR 52.215-8	Order of Precedence - Uniform Contract Format (OCT 1997)
+	FAR 52.215-10	Price Reduction for the Defective Cost or Pricing Data (OCT 1997) (The clause is applicable to subcontracts over \$550,000.)
. : +	FAR 52.215-12	Subcontractor Cost or Pricing Data (OCT 1997) (Applicable to subcontracts over \$550,000 only)
**	FAR 52.215-14	Integrity of Unit Prices (OCT 1997) and Alternate I (OCT 1997) (Alternate I is applicable if the action is contracted under Other Than Full and Open Competition)
+	FAR 52,215-15	Pension Adjustments and Asset Reversions (OCT 2004)
+	FAR 52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions (OCT 1997)
+	FAR 52.215-19	Notification of Ownership Changes (OCT 1997) (Applicable when Cost or Pricing Data is required)
	FAR 52.216-7	Allowable Cost and Payment (DEC 2002)
	FAR 52.216-8	Fixed Fee (MAR 1997)
**	FAR 52.219-4	Notice of Price Evaluation Preference for HUBzone Small Business Concerns (OCT 2004)
**	FAR 52.219-8	Utilization of Small Business Concerns (MAY 2004)
	FAR 52.222-1	Notice to the Government of Labor Disputes (FEB 1997)

**	FAR 52.222-2	Payment for Overtime Premiums (JUL 1990) (Note: The word "zero" is inserted in the blank space indicated by an asterisk)
	FAR 52.222-3	Convict Labor (JUN 2003) (Reserved when FAR 52.222-20 Walsh Healy Public Contracts Act is
**	FAR 52.222-4	applicable) Contract Work Hours and Safety Standards Act -
		Overtime Compensation (SEP 2000)
	FAR 52.222-21	Prohibition of Segregated Facilities (FEB 1999)
	FAR 52.222-26	Equal Opportunity (APR 2002)
*	FAR 52.222-35	Equal Opportunity for Special Disabled Veterans,
		Veterans of the Vietnam Era, and Other Eligible
	1	Veterans (DEC 2001)
*	FAR 52.222-36	Affirmative Action for Workers with Disabilities (JUN
	}	1998)
*	FAR 52.222-37	Employment Reports on Special Disabled Veterans,
		Veterans of the Vietnam Era, and Other Eligible
		Veterans (DEC 2001)
**	FAR 52.223-14	Toxic Chemical Release Reporting (AUG 2003)
**	FAR 52.225-8	Duty Free Entry (FEB 200)
	FAR 52.225-13	Restrictions on Certain Foreign Purchases (JAN 2004)
**	FAR 52.227-1	Authorization and Consent (JUL 1995)
**	FAR 52.227-2	Notice and Assistance Regarding Patent and Copyright
		Infringement (AUG 1996)
	FAR 52,228-7	Insurance Liability to Third Persons (MAR 1996)
		(Further to paragraph (a)(3), unless otherwise stated in
	:	this contract, types and limits of insurance required are
		as stated in FAR 28.307-2)
	FAR 52.232-9	Limitation on Withholding of Payments (APR 1984)
**	FAR 52.232-17	Interest (JUN 1996)
	FAR 52.232-23	Assignment of Claims (JAN 1986) and Alternate I (APR 1984)
	FAR 52.232-25	Prompt Payment (OCT 2003) and Alternate I (FEB
		2002) (The words "the 30th day" are inserted in lieu of
ļ		"the 7th day" at (a) (5) (i). [When Alternate I is
		applicable (a)(5)(i) does do not apply] [Alternate I
		applies when awarding a cost reimbursement
		contract for services]
	FAR 52.232-33	Payment by Electronic Funds Transfer - Central
		Contractor Registration (OCT 2003)
	FAR 52.233-1	Disputes (JULY 2002)
	FAR 52.233-3	Protest After Award (AUG 1996) and Alternate I (JUN 1985)
	FAR 52.242-1	Notice of Intent to Disallow Costs (APR 1984)
+	FAR 52.242-3	Penalties for Unallowable Costs (MAY 2001)
	FAR 52.242-4	Certification of Final Indirect Costs (JAN 1997)
**	FAR 52.242-13	Bankruptcy (JUL 1995)
<u> </u>	FAR 52.242-15	Stop Work Order (AUG 1989) and Alternate I (APR
-		1984)

	FAR 52.244-2	Subcontracts (AUG 1998) and Alternate I (AUG
		1998)
		[Insert in cost-reimbursement contracts, and letter, time-and-material, and labor-hour contracts exceeding SAP, and fixed price contracts exceeding SAP where unpriced actions are anticipated. Use Alternate I for cost-reimbursement contracts]
**	FAR 52.244-5	Competition in Subcontracting (DEC 1996)
1,,-1,,-	FAR 52.244-6	Subcontracts for Commercial Items and Commercial Components (JUL 2004)
	FAR 52.245-5	Government Property (Cost-Reimbursement, Time-and-Materials, or Labor-Hour Contracts) (MAY 2004) and ALT I (JUN 2003) (As modified by DoD Class Deviation 99-00008 dated 13 July 1999) (ALT I is applicable if the contractor is a nonprofit organization whose primary purpose is the conduct of scientific research)
**	FAR 52.247-64	Preference for Privately Owned U.S. Flag Commercial Vessels (APR 2003)
	FAR 52.249-6	Termination (Cost-Reimbursement) (MAY 2004)
·····	FAR 52.249-14	Excusable Delays (APR 1984)
	FAR 52.251-1	Government Supply Sources (APR 1984)
	FAR 52.253-1	Computer Generated Forms (JAN 1991)

II. DEPARTMENT OF DEFENSE FAR SUPPLEMENTAL (DFARS) (48 CFR CHAPTER 2) CLAUSES:

**	DFARS 252.203-7001	Prohibition On Persons Convicted of Fraud or Other
		Defense-Contract-Related Felonies (MAR 1999)
	DFARS 252,204-7003	Control of Government Work Product (APR 1992)
	DFARS 252,204-7004	Alternate A (NOV 2003)
**	DFARS 252.209-7000	Acquisition from Subcontractors subject to On-Site Inspection under the Intermediate Range Nuclear Forces (INF) Treaty (NOV 1995)
**	DFARS 252.209-7004	Subcontracting with Firms That Are Owned or Controlled by the Government of a Terrorist Country (MAR 1998)
+	DFARS 252.215-7000	Pricing Adjustments (DEC 1991)
++	DFARS 252.219-7004	Small, Small Disadvantaged and Women-owned Small Business Subcontracting Plan (Test Program) (JUN 1997)
	DFARS 252.225-7004	REPORTING OF CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES (APR 2003)
市 本	DFARS 252,225-7012	Preference for Certain Domestic Commodities (JUN 2004)

	DFARS 252.225-7031	Secondary Arab Boycott of Israel (APR 2003)
	DFARS 252.227-7013	Rights in Technical Data - Noncommercial Items (NOV 1995), and Alternate I (JUN 1995)
	DFARS 252.227-7014	Rights In Noncommercial Computer Software and Noncommercial Computer Software Documentation (JUN 1995)
	DFARS 252.227-7016	Rights in Bid or Proposal Information (JUN 1995)
	DFARS 252.227-7019	Validation of Asserted Restrictions – Computer Software (JUN 1995)
	DFARS 252.227-7025	Limitations on the Use or Disclosure of Government- Furnished Information Marked with Restrictive Legends (JUN 1995)
	DFARS 252.227-7028	Technical Data or Computer Software Previously Delivered to the Government (JUN 1995)
	DFARS 252.227-7030	Technical Data - Withholding of Payment (MAR 2000)
	DFARS 252.227-7036	RESERVED
	DFARS 252.227-7037	Validation of Restrictive Markings on Technical Data (SEP 1999)
	DFARS 252.231-7000	Supplemental Cost Principles (DEC 1991)
	DFARS 252.232-7003	Electronic Submissions of Payment Requests (JAN 2004)
	DFARS 252.242-7000	Post-Award Conference (DEC 1991)
**	DFARS 252.243-7002	Requests for Equitable Adjustment (MAR 1998)
	DFARS 252.245-7001	Reports of Government Property (MAY 1994)
X	DFARS 252.246-7000	Material Inspection and Receiving Report (MAR 2003)
**	DFARS 252.247-7023	Transportation of Supplies by Sea (MAY 2002)
**	DFARS 252.247-7024	Notification Of Transportation Of Supplies By Sea (MAR 2000) (Applicable when the Contractor has made a negative response to the inquiry in the representation at DFARS 252,247-7022.)
	DFARS 252.251-7000	Ordering from Government Supply Sources (OCT 2002)

(B) ADDITIONAL FAR AND DFARS CLAUSES

This contract incorporates one or more clauses by reference as indicated by the mark of (X), with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: http://www.arnet.gov/far/

	FAR 52.204-2	Security Requirements (AUG 1996) (Applicable if contract will generate or require access to classified information and DD Form 254, Contract Security Classification Specification, is issued to the contractor)
X	FAR 52.209-6	Protecting the Government's Interest when Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (JUL 1995) (Applicable to contracts exceeding \$25,000 in value.)
	FAR 52.215-16	Facilities Capital Cost of Money (JUN 2003) (Applicable if the Contractor did propose facilities

		capital cost of money in the offer)
X	FAR 52.215-17	Waiver of Facilities Capital Cost of Money (OCT 1997)
		(Applicable if the contractor does not propose facilities
		capital cost of money in the offer)
X	FAR 52.215-21	Requirements for Cost or Pricing Data or Information
		Other Than Cost or Pricing Data - Modifications (OCT
		1997) (Applicable to 'contracts' if cost or pricing data or
	1	information other than cost or pricing data will be
		required for modifications)
· · · · · ·	FAR 52.217-9	Option to Extend the Term of the Contract (MAR 2000)
	PAR 32.217-3	(In paragraph (a), insert "XX", and in paragraph (c),
		insert "XX") (Applicable if contract contains line item(s)
		for option(s)) (Complete the spaces in parentheses)
	EAR 52 210 3	Notice of Total HUBZone Set-Aside (JAN 1999)
	FAR 52.219-3	
	FAR 52.219-5	Very Small Business Set-Aside (JUN 2003) (For actions
,,,	 	between \$2,500 and \$50,000)
	FAR 52.219-6	Notice of Total Small Business Set-Aside (JUN 2003),
	•	and Alternate I (OCT 1995) (Applicable to total small
		business set-asides, including SBIR) Alternate II (MAR
		2004) (As prescribed in 19.508(c))
	FAR 52.219-7	Notice of Partial Small Business Set-Aside (JUN 2003)
		and Alternate I (OCT 1995) Alternate II (MAR 2004)
	FAR 52.219-10	Incentive Subcontracting Program (OCT 2001)
		(Applicable at the PCO's discretion to contract actions
		exceeding \$500,000 and when subcontracting
		possibilities exist. The clause is small business exempt)
		(In paragraph (b), insert the appropriate number between
	1	0 and 10 - "XX") (Complete the space in the
		parentheses)
-P 187	FAR 52.219-25	Small Disadvantaged Business Participation Program -
	ļ	Disadvantaged Status and Reporting (OCT 1999)
		(Applicable if contract includes FAR 52.219-24)
	FAR 52.219-26	Small Disadvantaged Business Participation Program -
		Incentive Subcontracting Program (OCT 2000)
		(Applicable at the PCO's discretion to contract actions
		exceeding \$500,000 and when subcontracting
	1	possibilities exist. The clause is small business exempt)
	.]	(In paragraph (b), insert the appropriate number between
	1	0 and 10 - "XX") (Complete the space in the
	ł	parentheses)
	FAR 52.222-20	Walsh Healy Public Contracts Act (DEC 1996)
	17AK J.E. 222-20	(Applicable if the contract includes deliverable
		materials, supplies, articles or equipment in an amount
		that exceeds or may exceed \$10,000)
	FAR 52.223-5	Pollution Prevention and Right-to-Know Information
	FAR 32.223-3	(AUG 2003) (Applicable if contract provides for
		performance, in whole or in part, on a Federal facility)
	TAD 50 000 5	
X	FAR 52.223-6	Drug-Free Workplace (MAY 2001) (Applies when
	1	contract action exceeds \$100,000 or at any value when
		the contract is awarded to an individual)

	FAR 52.230-2	Cost Assorbing Standards (ADD 1000) (Applicable
•	FAR 52.230-2	Cost Accounting Standards (APR 1998) (Applicable
		when contract amount is over \$500,000, if contractor is
		subject to full CAS coverage, as set forth in 48 CFR
		Chapter 99, Subpart 9903.201-2(a) (FAR Appendix B)
	FAR 52.230-3	Disclosure and Consistency of Cost Accounting
		Practices (APR 1998) (Applicable when contract
		amount is over \$500,000 but less than \$25 million, and
		the offeror certifies it is eligible for and elects to use
	}	modified CAS coverage as set forth in 48 CFR Chapter
		99, Subpart 9903,201-2 (FAR Appendix B)
	FAR 52,230-6	Administration of Cost Accounting Standards (NOV
		1999) (Applicable if contract is subject to either clause
		at FAR 52.230-2, FAR 52.230-3 or FAR 52.230-5)
X	FAR 52.232-20	Limitation of Cost (APR 1984) (Applicable only when
А	1-AK 32.232-20	contract action is fully funded)
	EAD 52 222 22	
X	FAR 52.232-22	Limitation of Funds (APR 1984) (Applicable only when
		contract action is incrementally funded)
	FAR 52.239-1	Privacy or Security Safeguards (AUG 1996) (Applicable
	1	to contracts for information technology which require
		security of information technology, and/or are for the
		design, development, or operation of a system of records
		using commercial information technology services or
	<u> </u>	support services.)
	FAR 52.245-18	Special Test Equipment (FEB 1993) Applicable when it
	<u> </u>	is anticipated that the contractor will acquire or fabricate
	İ	special test equipment but the exact identification of the
		equipment is not known)
	DFARS 252.201-7000	Contracting Officer's Representative (DEC 1991)
		(Applicable when appointment of a Contracting
		Officer's Representative (COR) is anticipated.)
	DFARS 252.203-7002	Display of DoD Hotline Poster (DEC 1991) (Applicable
		only when contract action exceeds \$5 million or when
		any modification increases contract amount to more than
		1 - 5 · · · ·
T 7	DFARS 252.204-7000	\$5 million)
X	DFARS 232.204-7000	Disclosure of Information (DEC 1991) (Applies when
	{	Contractor will have access to or generate unclassified
		information that may be sensitive and inappropriate for
		release to the public)
	DFARS 252.204-7005	Oral Attestation of Security Responsibilities (NOV
		2001) (Applicable if FAR 52.204-2, Security
		Requirements Applies)
X	DFARS 252,205-7000	Provision of Information to Cooperative Agreement
		Holders (DEC 1991) (Applicable only when contract
		action exceeds \$500,000 or when any modification
		increases total contract amount to more than \$500,000)
		Item Identification and Valuation (JAN 2004)
	DFARS 252.211-7003	11041 200110110411011 WHO I MIGHIOR (37117 2007)
	10111100 202.211-7000	

X	DFARS 252,215-7002	Cost Estimating System requirements (Oct 1998) (Applicable only to contract actions awarded on the basis of certified cost or pricing data)
	DFARS 252.223-7004	Drug-Free Work Force (SEP 1988) (Applicable (a) if contract involves access to classified information: or (b) when the Contracting Officer determines that the clause is necessary for reasons of national security or for the purpose of protecting the health or safety of performance of the contract.
	DFARS 252.223-7006	Prohibition on Storage and Disposal of Toxic and Hazardous Materials (APR 1993) (Applicable if work requires, may require, or permits contractor performance on a DoD installation)
1	DFARS 252.225-7001	Buy American Act and Balance of Payments Program (APR 2003) (Applicable if the contract includes deliverable supplies) (This clause does not apply if an exception to the Buy American Act or Balance of Payments Program is known or if using the clause at 252.225-7021, or 252.225-7036.)
	DFARS 252.225-7002	Qualifying Country Sources as Subcontractors (APR 2003) (Applicable when clause at DFARS 252.225-7001, 252.227-7021, or 252.227-7036 applies)
	DFARS 252.225-7016	Restriction On Acquisition Of Ball And Roller Bearings (MAY 2004) (Applicable if contract includes deliverable supplies, unless Contracting Officer knows that items being acquired do not contain ball or roller
	DFARS 252.226-7001	bearings) Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns (SEP 2004) (Section 8021 of Pub. L.107-248 [and similar sections in subsequent DoD appropriation acts.])
	DFARS 252.227-7018	Rights in Noncommercial Technical Data and Computer Software – Small Business Innovation Research (SBIR) Program (JUN 1995
	DFARS 252.242-7004	Material Management and Accounting System (DEC 2000) (Applicable to contract actions exceeding \$100,000) (Not applicable for contracts awarded to small businesses, educational institutions, or nonprofit organizations)

(C) COST-PLUS-FIXED-FEE-RESEARCH AND DEVELOPMENT CLAUSES

The following FAR and DFARS clauses apply to Cost-Plus-Fixed-Fee Research and Development Contracts and are either required by regulation or are required when the circumstances of the contract warrant that they apply: (** - applies to contract actions exceeding \$100,000)

1	FAR 52.225-16	Sanctioned European Union Country Services (FEB 2000)
**	FAR 52.227-1	Authorization and Consent (JUL 1995) and Alternate I

	(APR 1984)				
FAR 52.243-2	Changes - Cost Reimbursement (AUG 1987) and Alternat V(APR 1984)				
FAR 52.246-9	Inspection of Research and Development (Short Form) (APR 1984)				
FAR 52.246-23	Limitation of Liability (FEB 1997)				
DFARS 252.235-7002	Animal Welfare (DEC 1991)				
DFARS 252.235-7011	Final Scientific or Technical Report (SEP 1999)				
	FAR 52.246-9 FAR 52.246-23 DFARS 252.235-7002				

The following FAR and DFARS clauses for Cost-Plus-Fixed-Fee Research and Development Contracts only apply when specifically marked with a check (x):

	FAR 52.227-10	Filing of Patent Applications -Classified Subject Matter (APR 1984) (Applicable if contract is subject to FAR clause 52.204-02 and either 52.227-11 or 52.227-12)
X	FAR 52.227-11	Patent Rights – Retention by the Contractor (Short Form) (JUN 1997) (Applicable if contractor is a small business or non profit organization)
<u></u>	OR	
	FAR 52.227-12	Patent Rights – Retention by the Contractor (Long Form) (JAN 1997) (Applicable if contractor is a large business)
Х	DFARS 252.227-7034	Patents - Subcontracts (APR 1984) (Applicable when FAR 52.227-11 applies)
X	DFARS 252.227-7039	Patents – Reporting of Subject Inventions (APR 1990) (Applied when FAR 52.227-11 applies)

7) Section J is deleted in its entirety and reinstated as follows:

SECTION J - LIST OF ATTACHMENTS

- 1. EXHIBIT A, entitled "Contract Data Requirements List" (DD Form 1423) I page with Enclosure Number 1, entitled "Contract Data Requirements List Instructions for Distribution", 2 pages.
 - 2. ATTACHMENT NUMBER (1), entitled, "Statement of Work", 2 pages.
 - 3. ATTACHMENT NUMBER (2), entitled, "Financial Accounting Data Sheet(s)".
 - 4. ATTACHMENT NUMBER (3), entitled, "Statement of Work Expansion P00002", 2 pages.

8) Section K is deleted in its entirety and reinstated as follows:

SECTION K - REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFEROR

1. The Contractor's Representations and Certifications, dated 27 October 2004, are hereby incorporated into this contract by reference.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED

STATEMENT OF WORK

Expansion P00002

Perform research in efficient numerical methods for electromagnetic scattering as follows:

- 1) Test the sparseness resulting from the use of restricted ranges of angles in the Simply Sparse method. Develop strategies for choosing the restricted ranges of angles and for optimizing other parameters as appropriate with a the goal of increasing the sparseness. Test the resulting strategies and report the results.
- 2) Develop and test algorithms for automatically computing the restricted ranges of angles. Report on he results.
- 3) Test the algorithm for improving the speed of the Schur Compliment method by using a physically motivated reduced dimension subspace. Also, test the results for this algorithm with several appropriate integral equations. Report on the usefulness of the algorithm for increasing speed (or for reducing the operation count).

PROJECT SCHEDULE AND MILESTONES

0)	Program Begins	November 15, 2004
1)	Examine Sparseness resulting from restricted	
	angular ranges	January 1, 2005
2)	Develop and test methods for improving the	
	sparseness that results with restricted angular ranges	October 1, 2004
3)	Test the algorithm for computing the Schur	
	Compliment using physically motivated modes,	
	Using one integral equation	April 1, 2005
4)	Develop and test an algorithm for automatically	
	computing the restricted angular ranges for	
	complicated geometries	June 15, 2005
5)	Test the algorithm for computing the Schur	
	Compliment using physically motivated modes,	
	Using several integral equations	June 15, 2005

DELIVERABLES

Two letter technical progress reports will be provided, along with Power Point slides describing that technical progress. At the end of the contract, a formal progress report will be provided. At least one technical paper will be written, suitable for submission for publication in a peer reviewed journal, on the results of the tasks described here.

FINANCIAL ACCOUNTING DATA SHEET - NAVY

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FINANCIAL ACCOUNTING DATA SHEET - NAVY

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27. SPECIAL INSTRUCTIONS:		·····	· · · · · · · · · · · · · · · · · · ·	<u> </u>
28. DELEGATIONS: The administration duties liste	d below have been delegated to th	e administrative office (t	lock 23a). Upon request the awarding	office contact (block 22)
will make their full text available. Please direct que	tions to the contacts @: http:	//www.onr.navy	.mil/02/024/offices.as	sp
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29. TERMS AND CONDITIONS: The following term Upon request the awarding office contact named in	is and conditions are incorporated block 22 will make their full text av	herein by reference with	the same force and effect as if they w	ere given in full text.
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(859) 257177	5 rjadams@uk	y. edu	(703	3) 696-4714		STEVEN.J.RU	SSELL@NAVY.MIL	<u> </u>
22. AWARDING OFFICE 22a. NAME: John 1		22b. CODE: ONR BD245	23a. ADN	MINISTRATIVE OFFI	ICE:		23b. CODE: N6288	0
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27. SPECIAL INSTRUCTIONS	·			
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28, DELEGATIONS: The administration duties listed	l below have been delegated to	the administrative office (block 23a). Upon request the awarding	office contact (block 22)
will make their full text available. Please direct ques	tions to the contacts @: http	://www.onr.navy.mi	1/Contracts-Grants/Regional	i-Contacts.aspx
Full Delegation				
29. TERMS AND CONDITIONS: The following term	s and conditions are incorporat	ed herein by reference wit	h the same force and effect as if they v	vere given in full text.
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(4) 31. REPORTS: The following reports must be subm	nitted to the indicated addresse	es. In the indicated quantit	ies, within 90 days following the expira	tion or termination of
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FINANCIAL ACCOUNTING DATA SHEET - NON-NAVY DoD ACTIVITIES

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The purpose of this modification is to extend the geriod of performance of this award to December 31, 2015 at no additional cost to the Government. To other changes are to made to this award through this modification.
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27. SPECIAL INSTRUCTIONS:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
28. DELEGATIONS: The administration duties lists will make their full text available. Please direct que	tions to the contacts (A)		block 23a). Upon request the awarding 1/Contracts-Grants/Regional	· · · · · · · · · · · · · · · · · · ·		
Full Delegation			-			
29. TERMS AND CONDITIONS: The following term Upon request the awarding office contact named in DOCUMENT The following documents may be for http://www.onr.navy.mil/Contracts UAAC Acceptance C November 2003 Agency Specific February 2011 UAWA Award A November 2003	block 22 will make their full text ava	ailable, or they can be	found as described below.			
Core June 2011						
30, OPTIONS OPTION NO. (1) (2) (3) (4) 31. REPORTS: The following reports must be subr	AMOUNT	n the indicated quantiti	PERIOD es. within 90 days following the expirat	ion or termination of		
the project. Final Technical Reports must have a S Block 12a of the SF298 as follows: "Approved for F	F298, Report Documentation Page,	accompanying them.	Unless otherwise stated in the award/m	odification, complete		
ADDRESSEE	REPORT TYPE			COPIES		
See block #21	block #21 Final Report is not required Interim Research Performance Report (As Required) with SF298					
ee block #23a Report of Inventions and Subcontracts - DD 882 Final Report is not required Interim Research Performance Report (As Required) Final Federal Financial Status Report - SF425 - Including Line Item 11						
Defense Technical Information 8725 John J Kingman Road Ste Fort Belvoir, VA 22060-6218		t is not requiesch Performa	ired ance Report (As Require	0 1		
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32. FOR THE RECIPIENT			D STATES OF AMERICA			
32a, SIGNATURE OF PERSON AUTHORIZED TO) SIGN	33a, SIGNATURE OF	FAWARDING OFFICER			
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32b. NAME AND TITLE OF SIGNER	32c. DATE SIGNED	33b. NAME AND TIT Ellen Simon	LE OF AWARD OFFICER	33c, DATE SIGNED 15-JAN-13		

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FINANCIAL ACCOUNTING DATA SHEET - NON-NAVY DoD ACTIVITIES

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13a ADDRESS: 5B333 UNIVERSITY OF KEN OFFICE OF GRANTS 201 KINKEAD HALL LEXINGTON, KY 405	TUCKY RES	EARCH FOUNDATION		ne as block	#13		
13d. BUSINESS OFFICE CON	FACT:						
Deborah Davis 13e, TELEPHONE NUMBER:	13f. EMAIL ADI	Incee.					
(859) 257-9420	ddavisəeməil.	uky.edu					
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20a. PRINCIPAL INVESTIGATO TECHNICAL REPRESENTATIV				NICAL REPRESEN ME: Steven J			21b. CODE:
ROBERT J. ADAMS			21c, ADI	DRESS:			ONR 331
			875	ce of Naval North Randol ngton, VA 22	lph Street	t	
20b. TELEPHONE NUMBER:	20c. EMAIL AD	DRESS:	21d, TEI,	EPHONE NUMBER	:	21e, EMAIL AD	DRESS:
(859) 2571775 22, AWARDING OFFICE CONT	rjadame@uky.e	22b, CODE:) 696-4714 MINISTRATIVE OFF	ice.	RUSSELLSGONR	LIAVY.MIL 123b. CODE:
22a NAME: Diane Gales		ONR BD025		WILLIAM TO THE OFF	, , , , , , , , , , , , , , , , , , ,		N62880
22c ADDRESS: Office of Naval Re 875 North Randolph Arlington, VA 2220 22d TELEPHONE NUMBER: (703) 696-2593	Street 3-1995		230 CHIC PHON	REG. OFFICE SOUTH DEARB AGO, IL 606 E: (312) 88 (312) 353-	ORN, ROOM 04-1595 5-5423		
24. SUBMIT PAYMENT REQU		25a. PAYING OFFICE:	25b. COI		26a. PATEN	IT OFFICE;	26b, CODE:
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27, SPECIAL INSTRUCTIONS:			<u> </u>	:
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The following documents may be f http://www.onr.navy.mil/Contract	ound at: s-Grants/submit-proposa	l/grants-proposa	al/grants-terms-condition	s.aspx
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325, NAME AND TITLE OF SIGNER	S2d. DATE SIGNED	33b. NAME AND THE Ellen Simone	LE OF AWARD OFFICER Off	33c. DATE SIGNED 13-FEB-12

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